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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Srinivasan Venkataraman

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IPSG, P.C.

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EXAMINER

ISMAIL, SHAWKI SAIF

ART UNIT

PAPER NUMBER

2155

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/934,977

**Applicant(s)**

VENKATARAMAN ET AL.

**Examiner**

Shawki S Ismail

**Art Unit**

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on August 21, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8-21-2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-7 are presented for examination.

The reference in IDS, form 1449 has been considered.

Applicant's claim for priority is acknowledged.

### ***Drawings***

2. Figures 1 and 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent

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claim. In general, applicant's sequence will not be changed. See MPEP

§ 608.01(n).

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, and 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 states "transmitting said first and second Ethernet Frames including said FC frame over said Ethernet..." It is unclear how the original FC frame is transmitted over the Ethernet since it could not be transmitted unless it was segmented into two Ethernet frames"

Claims 4-6 contain similar limitation as in claim 1; therefore, they are rejected under the same rationale.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mulligan** U.S. Patent No. **6,212,190** and in view of **AAPA**.

7. As to claim 1, Mulligan teaches a method for generating one or more Ethernet frames having a maximum length and a maximum payload from a network frame having a frame length and for transmitting said frame over a Gigabit Ethernet to an intended destination, said method comprising the steps of:

(a) determining whether said frame length is smaller than said Ethernet frame maximum payload and if so generating an Ethernet frame wherein its payload comprises said frame and transmitting said Ethernet frame including said frame over said Ethernet to said intended destination (Fig. 6, col. 9, lines 38-48), and if not then performing steps (b) through (f);

(b) dividing said Frame into a first and second fragment, wherein each said fragment is smaller than said Ethernet frame maximum payload (Fig. 6, col. 9, lines 49-67);

(c) generating a storage transport layer field comprising said frame length (col. 9, lines 49-67, col. 10, lines 1-14);

(d) generating a first Ethernet Frame comprising said storage transport layer field and said first fragment (col. 9, lines 49-67);

(e) generating a second Ethernet Frame comprising said second fragment (col. 9, lines 49-67); and

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(f) transmitting said first and second Ethernet Frames including said frame over said Ethernet to enable said fragments to be reassembled at said intended destination (col. 9, lines 49-67).

Mulligan does not explicitly teach wherein the network frame is a Fibre Channel (FC) frame.

AAPA teaches a Fibre Channel medium, which is widely used in SANs to provide data transfer (Page 1, lines 29-30).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the teaching of Mulligan with the teachings of AAPA in order to provide a reliable, guaranteed, low-latency data transfer mechanism (Page 1, lines 29-30).

8. As to claim 2, Mulligan teaches the method of claim 1, wherein Transmission Control Protocol performs steps (a) through (e) (col. 1, lines 35-41).

9. As to claim 3, Mulligan teaches the method of claim 1 as discussed above. Mulligan does not explicitly state wherein said first fragment comprises a start of frame field, a frame header field, an optional header field, a first portion of a frame payload field and said second fragment comprises a second portion of said frame payload field, a Cyclic Redundancy Check field and an End of Frame field (col. 7, lines 26-33, col. 10, lines 1-14).

10. As to claim 4, it contains similar limitations as in claim 1; therefore, it is rejected under the same rationale.

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11. As to claim 5, it contains similar limitations as in claim 1; therefore, it rejected under the same rationale.

12. As to claim 6, it contains similar limitations as in claim 1 and 2; therefore, it rejected under the same rationale.

13. As to claim 7, it contains similar limitations as in claim 3; therefore, it rejected under the same rationale.

### ***Conclusion***

14. The Prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Kubista U.S. Patent No. 6,721,798, discloses a method and apparatus for converting IP datagram to/from Ethernet frames.

b. Giaretta et al., U.S. Patent No. 6,690,682, discloses bit multiplexing of packet-based channels.

c. Azizoglu et al., U.S. Patent No. 6,430,201, discloses a method and apparatus for transporting Gigabit Ethernet and Fiber Channel signals in a wavelength-division multiplexed system.

d. Latif et al., U.S. Patent No. 6,400,730, discloses a method and apparatus for transferring data between IP network devices over an IP Network.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawki S Ismail whose telephone number is 571-272-3985. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shawki Ismail  
Patent Examiner  
January 31, 2005



**HOSAIN ALAM**  
SUPERVISORY PATENT EXAMINER